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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,310	02/26/2004	Makihiro Otohata	Q80032	3429
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SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER MERCADO, JULIAN A	
			ART UNIT 1745	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/786,310	<b>Applicant(s)</b> OTOHATA ET AL.	
	<b>Examiner</b> Julian Mercado	<b>Art Unit</b> 1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: ____.  |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :2007-02-05,  
2006-01-25,2004-02-26 .

## DETAILED ACTION

### *Election/Restrictions*

This application contains a claim directed to the following patentably distinct species:

1. Group I, drawn to a battery element.
2. Group II, drawn to a capacitor element.

The species are independent or distinct because groups I and II are directed to related products. The related inventions are distinct if the (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect; (2) the inventions do not overlap in scope, i.e., are mutually exclusive; and (3) the inventions as claimed are not obvious variants. See MPEP § 806.05(j). In the instant case, the inventions as claimed have a materially different design, mode of operation, function and effect and are not obvious variants. Furthermore, the inventions as claimed do not encompass overlapping subject matter and there is nothing of record to show them to be obvious variants.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claim 1 is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

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Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Howard Bernstein on May 24, 2007 a provisional election was made with traverse to prosecute the invention of group 1, claims 1-10, drawn to a battery element. Affirmation of this election must be made by applicant in replying to this Office action. Claim 10's recitation of a capacitor element, albeit in the alternative, is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Information Disclosure Statement***

The Information Disclosure Statement (IDS) filed on February 5, 2007, January 25, 2006 and February 26, 2004 have been considered by the examiner with the following exception:

1. JP 2002-343439 A as cited in the January 25, 2006 IDS appears to be missing from the file.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "both sides" in line 5. There is insufficient antecedent basis for this limitation in the claim. It is suggested to positively recite a first and second side prior to the recitation of the limitation "both sides".

Claims 1 and 3 each recites the limitation "both surfaces" in line 12 and line 3, respectively. There is insufficient antecedent basis for this limitation in the claim. It is suggested to positively recite a first and second surface prior to the recitation of the limitation "both surfaces".

Claims 6 and 7 each recites the limitation "the other surface" in lines 2-3 and line 3, respectively. There is insufficient antecedent basis for this limitation in the claim. As above, it is suggested to positively recite a first and second surface as proper antecedents.

Claims 2, 4, 5 and 8-10 are rejected under 35 U.S.C. 112, second paragraph, as being dependent upon a rejected base claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4-6, 9 and 10 are rejected under 35 U.S.C. 102(a) as being anticipated by JP 2002-298825.

For purposes of detailed discussion, a machine translation of JP '825 is relied upon, available online at [http://www.ipdl.inpit.go.jp/homepg\\_e.ipdl](http://www.ipdl.inpit.go.jp/homepg_e.ipdl).

For claims 1 and 10, JP '825 teaches a film covered battery comprising a battery element having a positive [5] and negative [4] electrode opposing each other and a flexible casing (shown in Figure 7) for sandwiching said battery element from both sides in a thickness direction of said battery element to seal said battery element. See par. [0006] and [0014]. The flexible casing may comprise two halves as shown by cross-sectional Figures 8-11. The Figures show the casing as including a recess in one of said halves, such as upper half, for receiving said battery element. Lead terminals [1,2] are connected respectively to said positive electrode and said negative electrode of said battery element and extend from said casing. See par. [0029]

Notwithstanding the rejection made under 35 U.S.C. 112, second paragraph (discussion above),

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the lead terminals are shown as being connected to the battery element at a position inside of both surfaces of said battery element and in the thickness direction thereof, e.g. in Figure 6, the terminals [1,2] are inside collector [4a] and separator [6] in the thickness direction.

For claim 2, the battery element is a laminate battery element which has a plurality of positive [5] and negative electrodes [4] which are alternately laminated, and each of said positive electrodes and said negative electrodes comprises a tab protruding therefrom, wherein the tabs of said positive electrodes and the tabs of said negative electrodes are collectively joined, respectively, to form said battery element with charge collectors associated respectively with said positive electrode and said negative electrode, each said charge collectors being positioned inside of both surfaces of said battery element in the thickness direction thereof, said lead terminals being connected respectively to said charge collectors. See par. [0012] and [0027].

For claims 4-6, Figure 5 is considered to show each of said lead terminal [1,2] bent in a crank shape in a direction opposite to said half of said casing formed with said recess, the recess formed in said casing with a depth which is substantially equal to the height from the surface of a portion of said lead terminal extending from said casing to the surface of said battery element received in said recess, and a leading end of each said bent lead terminal positioned outside of the other surface of said battery element opposite to said recess in the thickness direction of said battery element.

For claim 9, the terminals [1,2] are connected to said battery element on sides of said battery element different from each other, i.e. left and right sides. See Figure 7.



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Claims 1, 4-6, 9 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Sonozaki et al. (U.S. Pat. 6,106,973).

For claims 1 and 10, Sonozaki et al. teaches a film covered battery comprising a battery element having a positive [41] and negative [42] electrode opposing each other and a flexible casing [45] for sandwiching said battery element from both sides in a thickness direction of said battery element to seal said battery element. See col. 4 lines 4-49. The flexible casing may comprise two halves [95A] (shown in duplicate) or two halves [135A] (shown in duplicate). See Figure 11 and Figure 14. Figure 14 shows the casing as including a recess in one of said halves, such as the outer portion, for receiving said battery element [97] on one side of the battery element, such as its bottom side. Lead terminals [136] are connected respectively to said positive electrode and said negative electrode of said battery element and extend from said casing. See col. 7 line 23-29, and as shown in Figure 14. To the extent that the claim is understood for the reasons set forth under 35 U.S.C. 112, second paragraph (discussion above), the lead terminal is further shown as being connected to the battery element at a position inside of both surfaces of said battery element, i.e. inside the left and right lateral surfaces, and in the thickness direction thereof. See Figure 8 which shows terminal [46] and col. 5 line 42 et seq.

For claims 4-6, Figure 8 is considered to show each of said lead terminal [46] bent in a crank shape in a direction opposite to said half of said casing formed with said recess, the recess formed in said casing with a depth which is substantially equal to the height from the surface of a portion of said lead terminal extending from said casing to the surface of said battery element received in said recess, and a leading end of each said bent lead terminal positioned outside of

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the other surface of said battery element opposite to said recess in the thickness direction of said battery element.

For claim 9, the positive lead terminal and negative lead terminal (both shown as [46]) are connected to said battery element on sides of said battery element different from each other, i.e. left and right sides, and/or top and bottom sides. See Figure 7.

Claims 1, 4, 9 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Lake (U.S. Pat. 5,326,652).

For claims 1, 9 and 10, Lake teaches a film covered battery [10] comprising a battery element having a positive electrode [20] and a negative electrode [18] opposing each other and a flexible casing comprised of two halves for sandwiching said battery element from both sides in a thickness direction of said battery element to seal said battery element. See col. 4 line 39 et seq. and Figure 4. The casing is shown as including a recess in each of said halves for receiving said battery element. See col. 3 lines 60-68. The casing halves receive one side of said battery element as exemplified by adhesive [34] being attached to the major side battery. See col. 4 lines 50-52. Lead terminals [14] and [16] are connected respectively to said positive electrode and said negative electrode of said battery element and extend from said casing, with each terminal being connected to said battery element at a position inside of both surfaces of said battery element in the thickness direction thereof and on sides of the battery element different from each other, i.e. left and right sides. See col. 3 lines 10-12, Figure 2 which shows the terminals comfortably connected within both outer surfaces of the battery and at different sides, and Figure 3, which further illustrates the same in cross-section.

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For claim 4, the recess formed in said casing has a depth which is substantially equal to the height from the surface of a portion of said lead terminal extending from said casing to the surface of said battery element received in said recess. See Figures 3 and 4.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2002-298825.

JP '825 does not explicitly teach the claimed thickness of the battery element (in mm), the claimed position of the charge collector (in mm), or the distance of the leading end of the bent terminals (in mm). However, absent of unexpected results it is asserted that these dimensions would be an obvious matter of design choice. *In re Japikse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950), *In re Kuhle*, 526 F.2d 533, 188 USPQ 7 (CCPA 1975).

***Allowable Subject Matter***

Claim 8 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

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The following is a statement of reasons for the indication of allowable subject matter: the prior art of record does not teach or suggest the instant invention regarding a battery having a plurality of positive and negative electrodes having lead terminals bent in a crank shape, wherein a protrusion in the casing is substantially equal to, i.e. the height from a first side of the battery element to the charge collector. This feature is understood by the examiner as being exemplified and shown by Figure 10.

The examiner notes that while JP '825 may arguably teach or at least suggest a protrusion in the lower half of the casing as shown in Figure 9, the protrusion does not have the height as claimed insofar as it protrudes in the opposite (i.e. convex) direction.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian Mercado whose telephone number is (571) 272-1289. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

A handwritten signature in black ink, appearing to be "Jant", enclosed within a large, loopy circular stroke.

PATRICK JOSEPH RYAN  
SUPERVISORY PATENT EX.